REMARKS

Claims 1-5, 7-13, 16, 18, 19, 22-24, 26, 29-34, 36, 37, and 39-44 are pending. Claims 1, 5, 7, 8, 16, 18, 19, 22, 23, 26, 29, 36, 37, 39, and 40 have been amended, claims 6, 14, 15, 17, 20, 21, 25, 27, 28, 35, and 38 have been canceled, and new claims 41-44 have been added to recite additional features of the invention depending from claim 1.

In the Final Office Action, claims 1-20, 22-34, and 36-40 were rejected under 35 USC § 103(a) for being obvious in view of Figure 3 of Applicants' drawings and the Kim publication. This rejection is traversed for the following reasons.

Claim 1 recites controlling the slot number of a non-coherently accumulator based on the moving speed of a transmitting end and the signal-to-noise ratio of a signal from the transmitting end. These features are not taught or suggested by the cited references.

Figure 3 shows setting the slot number of a non-coherent accumulator based on the moving speed of a terminal. And, the Kim publication discloses setting the slot number of a non-coherent accumulator based on signal-to-noise ratio. (See page 13, lines 21-30, and page 14, lines 19 and 20). However, neither reference teaches or suggesting their combining, i.e., setting the slot number of a non-coherent accumulator by taking both the moving speed and signal-to-noise ratio into consideration.

Moreover, neither reference teaches or suggests performing the specific type of control recited in amended claim 1, including "generating a first control signal for setting a first slot number of a non-coherent accumulator to compensate for the moving speed of the transmitting

13

end; comparing the signal-to-noise ratio to a predetermined level, generating a second control

signal by adjusting the first control signal; and inputting the second control signal into the non-

coherent accumulator, the second control signal changing the first slot number to a second slot

number of the non-coherent accumulator to adjust the measured signal-to-noise ratio based on a

result of the comparison." (See, for example, Paragraphs [47], [49], [50], [54], and [56] of the

specification for support). Applicants submit that claim 1 and its dependent claims are allowable

based on these features.

Dependent claim 5 recites "setting a weight for to the non-coherent accumulator based

on the second control signal." The second control signal is not taught or suggested by Figure 3

or Kim. Applicants therefore submit that claim 5 is allowable.

Dependent claim 7 recites "restricting a weight for the non-coherent accumulator based

on the second control signal when the signal-to-noise ratio is lower than the predetermined

level." These features are not taught or suggested by the cited references, whether taken alone or

in combination.

Claim 8 recites "generating a first control signal for setting a first slot number for said

non-coherent multi-slot accumulation to compensate for the moving speed of the transmitting

end; generating a second control signal by adjusting the first control signal; and performing said

non-coherent multi-slot accumulation based on the second control signal, the second control

signal changing the first slot number to a second slot number to adjust the measured signal-to-

noise ratio." These features are not taught or suggested by the cited references, whether taken

alone or in combination. Accordingly, it is submitted that claim 8 and its dependent claims are allowable.

Dependent claim 16 recites that "when the moving speed is determined to be higher than a first reference level and the signal-to-noise ratio is higher than a second reference level, the second control signal increases the first slot number to the second slot number." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Dependent claim 18 recites that "when the signal-to-noise ratio is determined to be below a predetermined value, the second control signal increases the first slot number to the second slot number." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Dependent claim 19 recites that "the second control signal maintains the second slot number to offset a change produced by the first slot number when the moving speed of the transmitting end is above a first reference level and the signal-to-noise ratio is below a second reference level." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 22 recites that the signal-to-interference ratio estimator "generates a second control information by adjusting the first control information, the second control information changing the first accumulation slot number to a second accumulation slot number to adjust the measured signal-to-noise ratio," and that the non-coherent accumulator "controls an accumulation slot number based on the second control information from the signal-to-interference ratio

estimator." These features are not taught or suggested by the cited references, whether taken

alone or in combination. Based on these differences, it is submitted that claim 22 and its

dependent claims are allowable.

Dependent claim 26 recites that "when the determined moving speed of the mobile

terminal is determined to be higher than a reference level, the Doppler estimator transmits the

first control information to the signal-to-interference ratio estimator to generate the second

control information for increasing the first accumulation slot number for ~~by~~ the non-coherent

accumulator." These features are not taught or suggested by the cited references, whether taken

alone or in combination.

Dependent claim 29 recites that "when the signal-to-noise ratio is determined to be below

a predetermined value, the signal-to-interference ratio estimator increases the first accumulation

slot number to the second accumulation slot number for input into the non-coherent

accumulator to a fixed slot number." These features are not taught or suggested by the cited

references, whether taken alone or in combination.

Dependent claim 36 recites that "the second control signal increases the first slot number

to the second slot number to achieve a desired mean acquisition time for recognizing the signal

transmitted from the transmitting end." The second control signal is not taught or suggested by

either cited reference. Accordingly, it is submitted that claim 36 is allowable, not only by virtue

of its dependency from claim 1 but also based on the features separately recited therein.

16

Dependent claim 37 recites that "the second control signal increases the first slot number to the second slot number when the signal-to-noise ratio is lower than the predetermined level." These features are not taught or suggested by the cited references, whether taken alone or in combination.

Dependent claim 39 recites that "the first control signal generated by the Doppler Estimator is indicative of a weight and wherein the second control signal adjusts the weight based on a result of the comparison of the signal-to-noise ratio to the predetermined level." These features are not taught or suggested by the cited references, whether taken alone or in combination.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and timely allowance of the application is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is

hereby made. Please charge any shortage in fees due in connection with the filing of this,

concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and

please credit any excess fees to such deposit account.

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